

# Braille+

## and

# Braille

# Refreshable Braille Display Support

- You may use one of several refreshable braille displays to provide feedback and input
- Braille feedback may be used instead of synthetic speech or in conjunction with it
- For a totally silent operating environment, you may also turn off the system sounds

# A refreshable braille display is hardware that displays a line of braille

- Braille represents a much more effective medium for learning
- Braille displays make it easy to check spelling, formatting, and spacing
- Braille displays make it easy to browse documents
- Math formulas and column or table data is more intelligible



# Braille Display Characteristics

- Refreshable braille displays uses cells to represent braille characters
- Lines that do not fit entirely on the display require "panning"
- Most displays have both a forward and backward panning control or advance bar
- Most braille displays contain cursor routing buttons

# The mobile manager works with a number of refreshable braille displays

Alva MDV

Albatross Mikropuhe

Baum Mini Braille

BrailleLite Multi Braille

BrailleNote Papenmeier

Combi Braille Telesensory Systems

Eco Braille Vidio Braille

Eurobraille Visio Braille

Freedom Scientific Voyager

Handy Tech



# Connect the Display

- You must establish a connection between the mobile manager and the display itself
- The mobile manager natively supports Bluetooth, USB, and serial over USB connections



# USB

- Connect the display to the USB connection using the interface cable that came with your mobile manager
- Open the Braille Display Settings option in the Settings menu
- Select Braille Display Settings
- Select USB from the Braille Display Port setting
- Select None from the Braille Bluetooth Device setting
- Choose your display model from the Braille Display Driver setting



# Bluetooth

- Turn on the Bluetooth refreshable braille display
- Turn on the mobile manager's Bluetooth radio
- Find Bluetooth Devices from the menu
- Type in the personal Identification Number (PIN) to pair the Bluetooth display to your mobile manager
- Open the Settings application. then select Braille Display Settings
- Pick Bluetooth from the Braille Display Port setting
- Pick the name of the Bluetooth display device
- Pick the name of the driver



# Serial Over USB

- Braille display with no USB or Bluetooth capabilities
- Use a special cable that converts USB signals to serial signals
- Connect a serial refreshable braille display via USB
- Turn on the display
- Open the Braille Display Settings option in the Settings menu
- Press App, 6, 1 to open the Settings menu, then select Braille Display Settings
- Select Serial over USB from the Braille Display Port setting
- Select None from the Braille Bluetooth Device setting
- Choose your display model from the Braille Display Driver setting

# Use the Display

- Turn on the Braille Display support with the command:  
Hold Program 1
- If you use a Bluetooth display, you must also turn on the display itself
- To turn braille display support off, Hold Program 1 again
- If the Bluetooth radio is still on, you will want to turn it off to help conserve battery life



# Braille Display Keys

- Turn on the mobile manager's Key Learn mode by holding the Help key.
- Once you put the mobile manager into Key Learn mode, you may press the keys on the braille display to discover their function.



# Braille In Use

- To read a document, you use the advance bar to move from display-full to the next display full
- If you reach the end, the display signals the program to place more text into the buffer
- Continue pressing the advance bar to read the entire document
- The braille display cursor is represented with both dots 7 and 8

# More on Cursor Keys

- Route the cursor to a character in the document
- Press the cursor routing button at the desired cell to move the word processor's cursor to the place you touched.
- Cursor routing keys may serve other purposes.
  1. Yes/No Toggle
  2. Yes/No Question
  3. List or Menu Item Selection
  4. Dismiss status information



# Automatic Contraction

- The braille subsystem does its best to turn everything you read into properly formatted grade II braille
- Emails, newspapers, books, and other documents you read all get translated into contracted braille
- To turn on and off contraction, select Braille Output Method from the Braille Display Settings of the Settings menu



# The Braille Display Cursor

- The braille subsystem

Indicates the location of the cursor by showing dots 7 and 8

- Capitalization

Indicates a capital letter by raising dot 7

- Attribute Indication

Indicates the presence of an attributed character by raising dot 8, determine which attribute by pressing the Status key once

- Highlight Indication

Indicates a highlighted item in a list by raising dot 8

- Current Word Expansion

As you edit a document the word processor expands the word under the cursor

# Prompts in Edit Fields on Forms

- Ask you to type some information
- The braille display tries to provide the most relevant information when all the information will not fit
- The display shows the information with the cursor at the beginning, ready for you to type or edit
- All information is available by scrolling the display either back or forward
- The most important information appears by default
- If you type while the text of the input field is out of view, the braille display scrolls the text to the left



# Computer Braille

- The braille display indicates the need to use computer braille by putting an indicator at the end of a prompt
- The computer braille indicator is a two cell sequence consisting of dots 4-5-6 and dots 3-4-6
- When you read braille, it means that the following text is written in computer braille
- When you see it in a prompt, it means you should type your response in computer braille



# Speech and System Sounds

## with Braille

- Synthesized speech and system sounds continue with the braille display in use
- You may turn one or both of these off in the Braille Display sections of the Settings form
- The braille display informs you when a system sound event occurs (except for progress sound events)
- Use the system's status command to obtain information about the status of the current application

# System Sound Indication

- The braille display informs you when a system sound event occurs (except for progress sound events) by blinking the display
- You may see such a blinking effect when the messages arrive in the email inbox or when you have reached the top of a list plays
- It does not indicate what system sound played, but the user may use the system's status command to obtain information about the status of the current application.



# Braille Output Method

- Normally, the braille display subsystem tries to convert anything to contracted braille.
- Using the Grade II setting the display shows grade 2 braille even when the original document is not in braille
- To read without performing this translation, use the Braille Output Method setting and select Computer Braille



# Braille Display Input Keys

- Ability to use the braille display's keys to control the mobile manager
- Control nearly all aspects of Icon and Braille+ operation from the keys on the braille display
- See the Braille Chord Commands for a complete list
- The one exception to this rule are those commands that require holding a key such as Status or Apps
- For those commands, you must move your hands to the mobile manager and hold the key there

# Add and Remove Additional Displays

- Select Settings from the Utilities menu and choose Braille Display Settings to add or remove another refreshable braille display
- A list of all the displays currently configured to work with your mobile manager is shown
- The braille display manager asks for the interface type of the display, just follow the steps to add that display
- To remove a display press Star or select Delete from the menu
- To use a different display, use the left or right arrow to highlight the desired display



# Turn off the Mobile Manager

- If you plan to disconnect the interface cable just disconnect the cable and turn off the mobile manager
- When you turn it back on, it checks to insure the previously connected display is still available
- If it is not, the braille subsystem automatically turns off the braille mode
- If you have a different braille display simply hold Program 1, and it attempts to connect to any display that you configured
- If you have not yet configured any other braille, it shows the interface menu to add another display

# Turning off the mobile manager using a USB display

- When using a USB display the USB power keeps the mobile manager alive
- To resolve this situation unplug the USB cable from the braille display before turning off the mobile manager
- Using a Bluetooth display there is no problem, just turn it off